CHICAGO USERS GROUP PRESENTS

CHICAGO TIMES

THE NEWSLETTER OF THE CHICAGO AREA TI-99/4A USERS GROUP

THIS IS YOUR LAST ISSUE IF YOU HAVE NOT RENEWED!

DEC. 30, 1985
EDITOR: Carole Goldstein

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HAPPY NEW YEAR

THE JAN MEETING

will be held on Saturday Dec. 7, 1985 from 1:00 to 3:00 in the Fireside Lounge at Triton College. The meeting will feature a demonstration of the various graphics programs available for the TI99/4A.

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BULLETINS:

The DISASSEMBLY and the FULL DUPLEX columns will return next month.

MEETING DATES FOR THIS COMING YEAR ARE AS FOLLOWS:

JANUARY 4	JUNE 7
FEBRUARY 1	SEPT 6
MARCH 1	OCT 4
APRIL 5	NOV 1 (TI FAIRE)
MAY ?	DEC 6

MEMBERSHIP CHAIRMAN SPEAKS: Don Jones

I would like to begin to thank all of the members who renewed their memberships and cooperated by bringing checks with their membership numbers on them. By doing this, the burden of my job was lightened considerably.

For those of you who have not renewed your memberships, this will be the last issue of our newsletter that you will receive until you have renewed. Since this newsletter will be sent out before the end of the year, I have one last announcement regarding our discount rate, for renewals: Any renewals that arrive at our P.O. box number and have a post mark dated before January 1, 1986 will be honored at the $12.00 discount rate. Thereafter, the cost of a membership renewal will be $15.00.

As the new membership chairman, I have instituted a new method for dealing with membership cards and the distribution of our newsletter. All new members and members who have renewed their memberships for 1986 will notice that the second line of the mailing label on this newsletter will read, "Member #000/86." Where I have here indicated zeros, you should see your membership number. Following that, you will see the last two digits of the year that your membership is paid up through. 1986 membership cards will have a similar label on them. (Membership cards for members who renewed or joined at the last meeting will be available for you at the sign-in table when you first arrive. Out of state members and members who joined by mail should have already received their cards by mail.) This new system has required me to re-enter the addresses of all current members. So far, three typing errors have been brought to my attention. If there is an error on your mailing label or membership card, please bring it to my attention by leaving me a message on the bulletin board (my number is #168), by dropping me a line at our P.O. box number, or by giving me a note with both the incorrect information and the correction. For those cases in which I have made errors, I apologize for any inconvenience that I may have caused any members.

At the next meeting, only members who have renewed for 1986 will be allowed. If you have not renewed by the time of the meeting, you will have to renew your membership before your will be allowed admittance. By checking the second line of the mailing label on this newsletter, you can see if I have you indicated as a current member. If there is any discrepancy or question regarding your membership status, please have either your cancelled check or receipt with you when you come to the next meeting. If you want to contact me before the meeting, please use one of the methods that I mentioned in the preceeding paragraph.

In closing, I have a few short announcements:

Firstly: I still have a large number of stickers from our Faire. They were intended to be applied to shopping bags that never arrived. Any members may have any number of these stickers. They can be cut down in order to make bumper stickers. Just ask leave me a message or see me at the meeting if you would like any.

Secondly: We still have back issues of some of our newsletters. We have a lot of the vol. 4, #3 issue. It is a small one as it was

issued just before the 1984 Faire. We have 18 copies of the vol. 4, #7 issue, 61 copies of the vol. 4, #8 (March 3, 1985-April 1, 1985) issue, 10 copies of the vol. 4, #8 (April 04, 1985) issue and 31 copies of the issue dated October 31, 1985 (another just before the Faire issue). The price for these back issues will be $1.00 apiece. As the issues that came out just before the Faires were small, we will include copies of these issues free with the purchase of any other issues. In addition to the above back issues, we still have 91 copies of our 1985 Super Summer issue. I thouroughly recommend this to any new members who did not receive a copy of it. It is the best thing that we have ever published. The price for this issue, due to its greater size, will be $2.00 per copy. I will have a few copies of each of these back issues at the sign-in table after the meeting is over. If you want specific issues held aside for you, please leave me a message on our board.

Lastly: Someone left a beginners handbook on the Pascal language at the membership table at the last meeting. As I was ill, at the time, I was unable to attempt to find out who the correct owner was. I will have it with me at the next meeting.

Happy New Year to all of my T.I. brothers and sisters!

BASICALLY YOURS: Rich Klein

Hello, again. It's now December and the holiday season is upon us. Time to shop for and exchange gifts. It would seem that, among other things, computer gifts may show up. Hope Santa keeps up with high tech.

This month I'll answer a letter that I received at the meeting after the summer break. At that time, I didn't have an answer, but now, after some researching, I've got the answer. First, the letter; then, the answer:

Q: I have read a number of places (including the CHICAGO Times) where it says that storing data in "internal" format saves room over storing that same data in "display" format. What I would like to know is, exactly how much room is saved? Given the following record format, what is the storage requirements in 1) Display format, 2) Internal format?

Field	Max Size
DA$	4
DB$	8
DC$	6
DD$	28
DE$	28
DF$	6
DG$	1
DH	9
DI	9

Thank you...R.W.W.,Wheaton, IL.

A: The answer to your question may suprise you and perhaps others. I

can't give you specific figures on the variables specified because you weren't specific enough. To be 100% accurate with your answer, I would need to know exactly how each record was to be written; how many and which fields to a record and, in the case of Display type files, what field delimiters were to be used. It makes a BIG difference in the size of a Display file when you use different delimiters in a file.

In a display type file, characters are stored in ASCII code. That is, an "A" is stored as code >41 (hex) or 65 (decimal). Numbers are treated the same way, except that a leading and trailing space is included, just as it is displayed on your screen. Each item is preceded by a byte that indicates how long the item following is. For example, if you store the string "ABC" in display format, it would look like this (in hexadecimal):

>03 >41 >42 >43
The number 100 would be stored as:

>05 >20 >31 >30 >30 >20

The way a number is stored might seem a bit wasteful where space ids concerned, but if you consider the way a number is stored in Internal format, you might change your mind. When it comes to storing numbers, Display format is preferrable as long as it is less than six digits long. Storing text in Display format is slightly better than Internal format. The place where Display format loses out, is when a delimiter other than the semicolon is used between fields. The semicolon causes the next field to be stored immediately next to the previous field. The other delimiters cause space characters to be placed in the field up to the logical end of the field (,),or to the end of the record (:).

If you store files in internal format, then text files are stored pretty much the same as Display type files, except that Internal files place an extra byte at the beginning of each record written to indicate the records length in bytes. The advantage of Internal files is that print delimiters have no effect on how the fields are written and no extra spaces are added. This obviously is true only for Variable length files. Any fixed length file would have either spaces (Display) or nulls added (CHR$(0); Internal) to fill out a record.

The disadvantage of Internal files is how numbers are stored. Numbers are kept internally by the computer in RADIX 100 notation. This means that any number no matter what, will occupy eight bytes in active memory. A byte is added to indicate the field's length and another byte is added for each record to indicate the length of the record. So this means that a number can take up nine or ten bytes of disk memory. This could be an advantage, however, because no matter how large or small a number is, you know how much space it will take up.

What this indicates is, contrary to popular belief, under certain circumstances Display files can occupy much less space than Internal files. My suggestion is that if you are storing figures for some number crunching program to crunch, use Internal format because the computer can use the data directly from the disk without conversion.

For text or non-numerical programs, use Display files.

If you read in your User's Reference Guide which came with your console, on page II-131, It tells about how files are PRINTed to accessory devices. It is quite informative, but it is not the way I found the answer out. Thanks to Miller's Graphics Advanced Diagnostics I was able to "see" exactly what was on the disk. So I wrote a program which generated data and wrote it repeatedly to te disk. The repetition was so I could see the separation between fields. As you can see, it worked. I would highly recommend this program and also their Explorer program to anyone who is curious about what goes on inside their computer and peripherals. These programs are not for novices, however.

Well that just about covers things for this month. I hope you all have a most enjoyable holiday season. I'm certainly going to try. See you soon!

SOFTWARE REVIEWS: Jack Topham

This will be my last report for a while on Graphics. I think you have had enough, but I do want to share some disks that can make creative drawing even more fun.

First are two disks from ASGARD. GRAPHX COMPANION #1 and #2. Each are 41 files that take up a full DS/SD disk. At $7 each they are a nice companion to GRAPHX. Included are Animations, Clip art, Pictures, and a wide variety of Fonts. I haven't had time to check them all out yet but most are impressive. A neat holiday present for yourself if you have been good. I really can't reccommend one disk over the other; you will want them both I suspect.

ASGARD SOFTWARE
P.O. BOX 10306
ROCKVILLE, MD 20850

Next are a couple of full disks of similar drawing aids from INCEBOT, INC., the TI-ARTIST people. Again two DS/SD disks plum full of Pictures, Fonts, Slides, and Instances. And again get both if TI-ARTIST is your drawing tool. Write INCEBOT for price as I got pre-release disks for evaluation. Super stuff to say the least.

INCEBOT, INC.
P.O. BOX 260
ARNOLD, MD 21012

My next offering this month comes from GREAT LAKES SOFTWARE. This is my first experience with these folks who showed their wares at the FAIRE. They readily provided me a copy of EXTENDED BUSINESS GRAPHICS for my review and evaluation.

So here we go. EBG is very easy to use since it auto loads in Xbasic and is menu driven. You are given a choice of READing in an old data set or CREATE a new one. The data is saved on DISK 1 with the filename EBG-fn so that all EBG files can be displayed for selection on the

screen. Once loaded or created you can select a PIE GRAPH, BAR GRAPH, or an X/Y GRAPH. Once the graph is created, it is displayed on the screen. If you are satisfied with the graph, you can print it out. Selecting PRINT GRAPH brings you to a screen which asks for printer type. 1 is for EPSON type, and 2 for the rest. Next you are asked for printer name (ie PIO.LF). Very easy to do since there are screen prompts lest you forget.

Most of the files are XBASIC but the program loads fairly quickly and the printer dump is in assembler so no wait there. My only negative is the small printout. Provision for double size and even double strike would make EBG even more usefull. At $25 I would expect these added features. Maybe a version 2 will come along.

GREAT LAKES SOFTWARE
804 E. GRAND RIVER AVE.
HOWELL, MI 48843

Another ASGARD program picked up at the FAIRE is DISK DATA BASE, an XBASIC disk library program. The program is full featured and comes on three disks. One disk is the Program Disk and the other are Data Disk masters. SS/SD, SS/DD, and DS/DD files are provided to match your drive/controller capability. (Up to 2500, 5700, or 12500 entries can be filed respectively). By providing these masters you do not have to initialize your own data disks but can rather just copy the appropriate master quickly.

Having done that, The Program Disk is placed in drive one where it is auto loaded. You are asked your name which is saved and displayed each subsequent time the program is loaded along with a new date input. The program screems for three drives. You are given the opportunity to configure the system at any time. I chose drive one for the Master Disk and The Data Disk so I have drive 2 free for the Disks to be cataloged. That makes for a lot of disk swapping. I am going to see if I can work in my RAM/Disk somehow to solve that problem. One drive means a lot of swapping, two less, and three none!

DDB is full featured and 100% menu driven. Learning the terminology is easy and all worked well so long as you don't forget to swap Disks. Yep, the program crashes and must be re-run. I plan to look into an "ON-ERROR" routine to get arround that annoyance. All in all a great program with lots of class. An excellent (albeit a little slow) XBASIC program. Even tho I already use the assembler Disk Library I wrote about last month, I plan to use this one also because of the excellent screens and extra features.

One added goodie is that DDB will utilize data files created with my old standby "MASTER DISK FILE". Thats super since each of the two programs deal with Library etiquette differently. I am really pleased to see so many software authors providing translation between database files. That makes for a real professional capability for our 99.

PRACTICAL PROGRAMMING PRACTICES

```
100 REM "Tiny Breakout"
110 REM By John Behnke
120 REM Basic or X-Basic
130 CALL CLEAR
140 CALL CHAR(97,"")
150 CALL CHAR(98,"007C7C7C7C
7C7C")
160 CALL CHAR(99,"")
170 CALL CHAR(104,"3C7EFFFFF
FFF7E3C")
180 CALL CHAR(105,"FFFFFF")
190 CALL CHAR(106,"")
200 RANDOMIZE
210 FOR I=2 TO 9
220 CALL COLOR(I,2,16)
230 NEXT I
240 PRINT "ccccccccTINYcBREAK
OUTcccccccc"
241 FOR I=1 TO 22
242 PRINT
243 NEXT I
250 FOR I=5 TO 10
260 CALL HCHAR(I,2,98,30)
270 NEXT I
280 CALL VCHAR(1,31,97,96)
290 CALL HCHAR(24,3,106,28)
300 X=10
310 R=12
320 C=INT(27*RND)+3
330 CALL HCHAR(23,3,32,28)
340 CALL HCHAR(23,X,105,4)
```

Note: Use the Left and Right arrow keys to move your paddle. The program does not keep track of how many balls were used or your score. You may wish to add this.

```
350 RD=1
360 CD=-1
370 CALL HCHAR(R,C,32)
380 CALL GCHAR(R+RD,C+CD,H)
390 IF H<>32 THEN 570
400 R=R+RD
410 C=C+CD
420 CALL HCHAR(R,C,104)
430 CALL KEY(0,K,S)
440 IF S=0 THEN 370
450 IF (K<>83)*(K<>68)THEN 3
70
460 CALL HCHAR(23,X,32,4)
470 IF K=68 THEN 520
480 X=X-1
490 IF X<28 THEN 550
500 X=3
510 GOTO 550
520 X=X+1
530 IF X<28 THEN 550
540 X=27
550 CALL HCHAR(23,X,105,4)
560 GOTO 370
570 IF H<>106 THEN 600
580 CALL SOUND(200,-5,0)
590 GOTO 300
600 IF H<>97 THEN 640
610 CALL SOUND(20,-1,0)
620 CD=-CD
630 GOTO 380
640 IF H<>98 THEN 690
650 CALL SOUND(20,-1,0)
660 CALL HCHAR(R+RD,C+CD,32)
670 RD=-RD
680 GOTO 400
690 RD=-RD
700 CALL SOUND(20,-1,0)
710 IF (C<4)+(C>25)THEN 370
720 C=C+INT(RND*3)-1
```

HOW TO COMMIT SUICIDE FOR ONLY $10

by Stuart Olson

Since I am not a regular author in the newsletter, many of you do not know me. Some of you know me personally, while others may recognize my name as the author of a recent software release.

I'd like to talk about suicide. You all know what it means; the taking of ones own life. Well, TI did that several years ago when they orphaned the computer we all love so dearly. However, little did they realize that the orphan would grow into the dynamite little home computer it is today. If you doubt that, you weren't at the 1985 FAIRE.

Unfortunately , the TI population as a whole is now trying to commit suicide all by themselves, without the help of any big Texas firm! What I am talking about is FREEWARE, FAIRWARE, or USER SUPPORTED SOFTWARE (I prefer the later) or whatever you like to call it.

Let's get one point straight, right now. I'm not begging for money! What I am trying to do is give you a first hand observation of just what most of you are doing to yourselves.

As the author of MASS-TRANSFER (3.5), I can tell you that there is virtually NO such thing as user support when it comes to software. Yes, I did sell several copies at the FAIRE in November. What I am talking about is the payment for a copy that is given to you or downloaded from a BBS. To date, I've received a grand total of 14 payments from people who have sent a letter saying they were using my program. No, you read it correctly, an entire 14.

Now the obvious thought is that no one is using my program. That is possible, I admit, by not very probable. The payments I've received have come from California, Oregon, Nebraska, Georgia, New Jersey, Virginia, South Carolina, and even Illinois. In most cases, the letters made reference to "getting your program from a BBS". This type of comment does not surprise me since I am the sysop on TI-North, and I see similar "bunches of downloading" on some programs. One person who purchased my program also sysops a TIBBS in Sacramento, Ca. I recently received a letter from him asking if I could supply him with the info on what is needed to support the MXT downloads on his BBS. He mentioned that my software is up on his BBS and I quote: "It is the hottest item for downloading and a real winner." So much for the theory that no one is using my program.

That brings us up to the point of you, the user of this user supported software. If you old time users remember back when TI was still making the computers, you'll also remember the software that was available. To say the least, there has been more top quality software released under the user supported concept than TI ever made the entire time they were in the home computer market. NEATLIST, FAST-TERM, CATALOGING LIBRARY, and the list goes on.

Since most consider my software to be on the same level as the previously mentioned programs, I would consider the response to my program very typical for all the authors concerned, which is very simple: IT STINKS!!!
I remember the days when there were no such things as disassemblers, terminal software (except TEII), disk oriented utilities, etc. Well, we have them now but the supply may very soon stop.

I just read the December issue of a non-TI magazine (it never hurts to stay up on what is happening) in which the main format is CP-M and MS-DOS. For those of you who know something about other computers, you'll realize that these two operating systems have a HUGE following. Anyway, an article in that magazine commented on the lack of participation towards user supported software on those machines. Believe me, I've ran some of those programs and they are IMPRESSIVE! The editor of the magazine stated that many of the authors of these programs have notified him that they are dropping out of the picture. In other words, they are not writing any more user supported software. Reason; the "trickle" of token payments do not make it worth the

effort.

$10 software is a BIG bargain. You don't find a piece of software from a distributor for that price, at least not one on the same level as what this article is talking about. If you know where to find it, let me know and I'll be the first in line to buy it. Where else can you get a program, run it, analyze its features, and then decide if you really could use it. Granted, not everyone decides to use these programs, but too many of you do and never pay for them.

It all boils down to one simple fact. Keep cheating the authors out of there small payment, and the software will stop being available. Then you can all be happy, knowing that you can either write your own, or buy the stuff offered through a distributor for 2-5 times the price and 1/3 the quality. It is your choice, and most of you seem to prefer the later of the two options. As per myself, I'll continue to support the other authors, as I know just what they do to provide you with inexpensive, top quality software.

A rough calculation shows I've made about 13 cents an hour off my software. Now you tell me, am I going to encourage others to release there software under the great "user supported software" concept. No way, too many of you are trying to "commit suicide for only $10".

FROM OTHER ORPHANAGES: Jack Topham

This month introduces a new addition to our magazine which will bring news, tidbits, etc. from the other User Groups. Our group exchanges our magazine with over 50 other groups and want to share the news received from the other Orphaned Groups.

LA 99er COMPUTER GROUP held a commemoration of TI's black friday with a TI FEST on 19-20 Oct. at the Los Angeles SHRINE CONVENTION HALL! MYARK and MILLER'S GRAPHICS were among the participants. They proved again that it takes more than a group of narrow minded business(?) men to kill a truly great product. From their Oct. NEWSLETTER we are reprinting a handy keyboard layout to aid in using CALL KEYS. KEY UNIT 5 returns all LOWER and UPPER case, FUNCTION 1 thru 15, and CONTROL 128 thru 159 and 187 for example.

From the Sep. issue of PUDGET SOUND 99ERS comes some hints on speeding up an XBASIC program. As a program is developed each line goes into memory in the order entered. When SAVED the proram is in MEMORY IMAGE format and with the same mixed up line ordering. This slows down the RUN since the CPU has to look for the next line number if it isn't the next in order. OK just SAVE in MERGE format which puts each line in correct order (thats why merge seems so slow sometimes). Reload the merged program and then resave as a progam. VOLA' the program now executes faster. From these same folks come some new COMPUTER LAWS:
Any computer that runs well is obsolete.
All good programs have poor documentation.
That's not a "bug", that's a feature.

The AKRON AREA TI UG in Sep. announced a new new magazine offered on disk' The TI-99/A TRAVelER is available from BARY TRAVER at $30 for 6 issues. Call Barry at (215) 483-1379 for more info. They also mentioned SUPER 99 Monthly at $12/yr from Bytemaster at 171 Mustang st. in Sulphur, LA 70663.

The MANNERS NEWSLETTER from MID ATLANTIC NINETY NINE'ERS for Aug. offers a hint in XBASIC. In EXT BASIC V. 110 you have just completed a line or statement and entered it. you notice a mistake in the line or the computer snarls at you for a SYNTAX ERROR. Press FUNCTION 8 and the last line will reappear so you can "REDO" it. Note the option to change the line number as well. REDO is a far more powerfull edit tool than FUNCTION E or X, thanx to TI.

The NE IOWA HCUG in Oct. told their members how to change the screen colors for TI MUTI-PLAN. TI obscured this info in the manual so most are not aware of the feature. At the MP main menu do not hit enter but rather press the space bar until you like the colors. There are 12 combinations to pick from. Now hit enter and away you go.

Finally from 99'er NEWS comes a hint to speed up TI MULTI PLAN. Using a disk manager copy the TIMP files in this order: OVERLAY, MPHELP, MPCHAR, MPDATA, MPINTR, and then MPBASE. OVERLAY is accessed first whenever the drive is accessed. The last four are accessed only at the start and in that order. The files will be on the disk in the best order but the DIRECTORY will show them alphabetized. Thanx guys.

HOW TO LOAD A PROGRAM: Stephan Meyers

It has come to my attention that many novice users are having a lot of trouble loading and running programs, particularly when given a disk full of programs. In fact, I am getting rather sick of phone calls from people saying "how do you boot up..." and such. Thus, I will endeavor to show you exactly what to do to figure out how to load a program. This article assumes that you are already versed with the care and feeding of disks: file management, etc. You should keep a write protect tab on the disk until you are sure of what you are doing. On with the show!

First and most important: CATALOG THE DISK. This applies to any disk you get. Catalog it first opportunity! That way, if anything is wrong with it, you can get it fixed. You should catalog to a printer, but a cursory peek on the screen will do if you have a good memory. If this is a disk you have bought, there may be a copy protection on it, which could make it uncatalougable. In this case, your documentation should tell you what to do.

If there is a PROGRAM file named LOAD, you should probably put the disk in drive one and go into Extended Basic. Many programmers set programs up to load quickly and easily in Extended Basic, and it is best to take advantage of this when available.

The next thing you'll want to do is categorize the files on the disk. I do this in my head, but it's best to write it down. Catalog the disk to printer, or copy the directory by hand. Divide the files up into categories: PROGRAM, D/V 80 (Display Variable 80), D/F 80 (Display Fixed 80), and Wierd. Wierd is Internal files, and wierd length Display files (D/V 20, D/F 69)

Next, look at all the D/V 80 files on the disk. Look especially for a file like *READ/ME or DOC1 or INSTRUCT or some such thing. You can use the new 3) READ D/V 80 FILE option of Disk Manager 1000, but I recommend using TI-Writer. That way, you can catalog the disk and load up any D/V 80 file you find, and skip around reading it at will.

However, do not write the file back to disk. Just load it, read it, and load the next D/V 80 file or quit. Don't ever change anything on a disk until you know what you are doing!! A D/V 80 file may not be documentation: it could be data, or even program if the author is doing something wierd. If you don't understand what the file is, ignore it and load another one. You'll probably hit instuctions eventually, if there are any. Another thing most people ignore is option 4 of the E/A editor: print. This will print a D/V 80 or D/F 80 file from disk to printer. At does not load the editor, so it is the quickest way to get a hardcopy of a disk file. Give the disk filename and printer filename when asked, and just sit back and let it print.

Files that are what I call Wierd type are almost certain to be data, although they could be program files if there is a special loader. By the way, I speak of program files as opposed to PROGRAM files. You will soon know the difference.

Program files, the kind that show up as PROGRAM in a disk directory, can be many things. They are most likely to be Basic or Extended Basic, or Program File Assembly. They can also b e data, most commonly with drawing programs. Look at the PROGRAM files to see if there is a pattern of a list of similar names with only the last character differing by one. For example, FAST-TERM and FAST-TERN, DM1 and DM2, or BIG-PROG, BIG-PROH, and BIG-PROI. The program file loader expects a program too big for one file to be in multiple files with the last character increased by one (M,N; 1,2; or G,H,I). To load this series of files, use Option 5 of the Editor/Assembler module, or any of the public domain option 5 program loaders floating around, such as XB-OPT5 by Barry Boone. Give the first filename, DSK1.BIG-PROG, and the file, along with all of its subsequent files will be loaded and run. Remember, if you change the filename of one, you have to change them all: if you make BIG-PROG into PROGRAM, the other files must be PROGRAN and PROGRAO in the proper order. Usually, but not always, all of the files except the last one will be 33 sectors. This corresponds with 8K of memory, the size of the buffer used by the program image saver usually used to create assembly language program files. A small assembly language program can be in one file, which loads the same way as multiple files. Try each program file in option 5, paying special attention to the first one in a list as detailed above: I.E. You really don't have to bother with trying PROGRAN and PROGRAO, but you should pay special attention to PROGRAM, since it is the first in a list. If this does not work, the file is probably a Basic language file. Try loading it in Extended Basic. If that doesn't work, ignore it, it's probably data.

Lastly, and most important, D/F 80 files. Most assembly language programs may be found in D/F 80 files. This is the sort of file that the Assembler program produces. These files may be loaded with option 3 of the Editor/Assembler, option 1 of Mini Memory, or sometimes with CALL LOAD("DSK1.filename") in Extended Basic. I recommend using Editor/Assembler or MiniMemory, since Extended Basic can only load certain sorts of D/F 80 programs, and the XB loader is much slower. First, try loading these files in option 3 and hope for "autoboot". That is, if you are lucky, the programmer set up the program to run itself. If not, you may have to think of a program name. If you load the file and get the same "FILENAME" prompt or a cursor in Extended Basic, then it is not autoboot. In Editor/Assembler or MiniMem, hit enter to get the "PROGRAM NAME" prompt: in Extended Basic you will use

CALL LINK("progname"). A program name is up to six characters, and usually reflects the name of the program or something relating to the start of the program. In fact START is the most common program name. Usually, START will get the program going. (note: all C programs should begin with START, unless they are in program format). You can try BEGIN, GO, RUN, anything else. If these don't work, try the program name. For example, if the program is Pac-Man, try PACMAN. If it is Donkey Kong, try DONK, KONG, DKONG, or DONKON. If none of these work, load the D/F 80 file into your favourite editor. It will probably look like a jumble of garbage to you, but it really isn't. Go down to the bottom of the file and look a 5 or a 6 followed by either 4 hexidecimal characters (such as 7D00 or FFEC) or 2 "garbage" or control characters. After that will be 6 characters. This may be the program name. There may be several of these: 5 or 6, followed by 4 hex characters or 2 gerbage characters, then 6 character name. One of these should be the program name. If there are a lot of the 5 or 6's, and a lot of similar things with 3 or 4 as well, you may have a real nasty program. This is a program made up of several D/F 80 files, which you may have to load seperately, filename by filename, and then give a program name. Look for similar filenames like with program files, like ANGLE1 and ANGLE2 or PARTA, PARTB, and PARTC. Usually, and programmer inconsiderate enough to leave a program in such a semi-finished state will give you a BASIC program to load it up (I.E. CALL LOAD("DSK1.PARTA","DSK1.PARTB","DSK1.PARTC") :: CALL LINK("START")). So, look for a program file with an appropriate name, like LOADS or the name of the program. It is also possible that the multi-file loader may be in assembly, so look for a D/F 80 LOADS or other filename.

Finally, Forth program. I get a lot of calls about how to load forth programs. There really isn't much I can do to help you. In Forth, it either loads almost by itself, or you need to know how to program in Forth to run it. Mostly, I can say, look for a D/F 80 file with the name of the program, or more commonly, FORTH. If you load it and nothing happens, it is probably too complicated. Experienced forth users: try editing the first few screens on the disk since there may be some loading instructions. The rest of you, read my earlier articles.

Well, hopefully, this will help. Remember, look for files with the program name or that imply loading, and always look for documentation. Normally, I tell my readers that I will help them if they need it. However, this time I'm gonna be rude. The reason I wrote this article is so that I wouldn't have to answer questions about how to load programs. So, get the hint? Ask someone else. I'll help out with any other questions you have about anything at all, but I'm sick of having to help people load programs. Sorry. Have a fun winter!!!

AMATUER RADIO & TI99/4A: Jan Janowski

Many Hams have computers, though not all computer enthusiasts are Hams. I thought that you might enjoy reading how I connected my TI and Ham Radio station together. Obviously in order to transmit you would need an amature radio license from the Federal Communications Commission, but much enjoyment can be found in just "reading the mail" -- literally -- worldwide.

My TI computer and Ham radio are both my hobbies, and I have been trying to get them together for some time, without spending a big buck,

and I have succeeded. Our TI's open up 3 computer assisted modes: ASCII, RTTY (radio teletype), CW (Morse code). To do this, you need a software cartridge, an interface card, and a TI console.

The interface card — (NOT plugged into expansion box) interfaces the audio inputs and outputs between the transmitter/receiver (analog), and the communications to the computer (digital), as well as control lines for the transmitter, frequency spacing of the RTTY signal, selection of RTTY, ASCII, or CW, as well as indicator LEDS that assist in tuning in the received signal.

You might refer to HCM Mag Vol 5 #1 page 43 for information on some of the items that are sold for this. One problem: expensive. I kept an eye out for used equipment at Hamfests (giant garage sales for amature gear. I saw the Hamsoft cartride for $30 last year, but had already spent my money) I ended up buying off the "green sheets" both the MFJ-1224 interface card and Kantronics Hamsoft for $80. (Check that price compared to HCM Mag!)

The Hamsoft was not specifically made for the MFJ-1224, but the MFJ unit is a universal computer interface, and was designed to work with the Hamsoft. My MFJ had noise spike problems, but I fixed it. (see MFJ-1224 in the download section)

Hookup is quite easy. A connector from the audio output (or across speaker leads) from receiver goes to the interface card. A multi-conductor cable goes from the interface card to software cartridge. I did that, and it worked, however the computer was interferring with the receiver so bad that it was even causing a herringbone pattern on the 9 inch B&W TV I scrounged for viewing (Note: The Hamsoft has a parallel printer interface on the software package via a 15 pin "D" connector) The problem was solved by slipping the cable between computer and interface through a flexible copper braid to shield the receiver from the computer. I was starting to get hooked! Both of my hobbies together! TECH NOTE: On receive, the tones from the speaker (RTTY,ASCII,CW) go to a tone decoder on the interface card. The output of that decoder is TTL logic which the software decodes as letters, numbers, etc.

To hook up the transmit side, a proper microphone connector for transmitter and shielded wire were connected to the interface card, along with ground and PTT wires. (PTT is an old expression, "Push To Talk"--totally obsolete now, isnt it?) The first time I transmitted, it did not work well at all -- until a good ground wire was added between the transmitter and interface card, and also to the shield braid I added between the computer and interface card. That fixed it! Good, solid, stable operations on RTTY, ASCII were achieved. By adding one extra shielded wire to the transmitter, I was able to add CW to the list of TI assisted Amature radio operations. I have had absolutely no problems with this setup in a year of operation, with contacts from all over the world. TECH NOTE: While transmitting RTTY or ASCII, the logic from the computer selects between two different tone oscillators on the interface card. You end up transmitting AFSK (Audio Frequency Shift Keying). In CW, the "key" signal turns the transmitter on/off to form Morse code.

The systems only flaw I seem to have misplaced my microphone, and have no incentive to look for it until Amature Radio Field Day. (Then the

TI assists by becoming a logger and duplicate finder, assisting me in this contest! (See VSHKFD1 and VSHKFD2 in download section)

What I really like doing is telling other hams (with their IBM's, ect. and expensive RTTY systems) that my total outlay was $90.00 ----- and a little ingenuity.

73's Jan J. 029

The Library Shelf: John Behnke

At the last meeting, I mentioned that we were switching the library to a new format. I'd like to explain now what it is and why the change had to occur.

When I received a copy of the library, there were about 300 program in it. After some much needed updates, that size increased to well over 600 programs. When orders were placed, they were for single programs. Now that the library contains over 2000 programs, we are unable to quickly duplicate programs on an individual basis. Therefore, we are switching to a method used by many other users groups and suggested to me by the librarian of the Iowa group. Here's how it goes:

- Programs are no longer offered individually but rather a disk at a time. This means that instead of asking for this program and that program, you ask for this disk and that disk.

- Disks will be copied with a mass copy program that takes about that same amount of time to copy as a single program.

- All disks will be in single sided / single density. This holds about 12 programs.

- The duplication cost per disk will be four dollars. We provide the disk. This will save you money if you consider that under the old format, 12 programs would have cost 12 dollars plus a dollar for the disk. In reality, the duplication cost per program has been reduced from $1 to $0.25.

- Two systems will be set up at each meeting for the library.

I'm sure this will speed things up quite a bit. A new catalog will be available on disk or hardcopy in the future. Thank you.

NEW PROGRAM AVAILABLE IN LIBRARY

TI Scrabble - This is an excellent machine language game. Play against the computer!

Halleys Comet - Excellent XB program to plot the course of the title comet.

Witching - Play checkers with Witches and Ghosts.

Mass Transfer II - Stu Olsons excellent program has gotten better. Reviewed in last newsletter. *FREEWARE* - $10.

TEXINCIA SPEAKS: Texincia Lubbock

Howdy there everybody. It's just great to be back in the windy city. Unfortunately, the wind has both its advantages and its disadvantages. At this time of the year, it surely is a *disadvantage*. Well fellows, it's obviously time for Texincia to take out her trusty snuggies. A blast of winter wind up the old "bazoo" is enough to take any girl's breath away.

Speaking of breath, I have been really appalled with some of the hot air that I have seen being blown on some of the bulletin boards since I've been back in town. If fact, hot air is a very generous euphemisism. Sewer gas would be more appropriate. The spleen, the ire, the anger, not to mention the venomous, vengeful, vitrioic, verminous, vituperative, and vindictive, vulgarities that I have seen bandied are enough to make a sweet poor thing (like me) blush all the way down to her tippy toes. With all of the nasty words that are sometimes being thrown around, it seems to me that there are those who would have our bulletin boards go the same way as C.B. radio has. I *used* to enjoy using my C.B. radio. I can still remember very pleasant summer evenings when I would be doing double nickles times two down U.S. 55. I would have my cassette deck blasting away with some Waylon Jennings. I would have the ol' cruise control on and my flashing red, white and blue road lights would be letting the whole world know that I'm proud to be an American. One hand would be on the wheel and the other would have a *Coor's*. And in my pretty gold teeth, I would have my own hand rolled stogie, which was a Cuban "el ropo" laced with a generous portion of Panama Red. Now that was living' In those early days of C.B., it was fun to go out and "interface" with the guys. Sometimes, I was even able to arrange a delightful, delectable, and delicious assignation. I must admit that I was always a big hit at *Dixie Diner* with all of the trucker guys! Those were days that still bring the tears to my baby blue eyes. It wasn't soon, though, before all that changed. In the beginning, courtesy ruled the air waves. Today, the only thing that rules is a lot of toilet tonsil talk. When that's not what the people are into, they are talking a lot of crazy stuff. What a shame. It hurts me to see that type of mentality emerging on some of the bulletin boards. Thankfully, the SYSOP of the group's bulletin board is a vigilant family man who excises any vulgarity that may come up on our lovely board. The SYSOP of TI-West has had the good sense to reserve a section on his board for fighting. He calls it, "The Argument Section." I feel that a better name would be, "The Stupid Section." The only bothersome garbage that we now have to deal with is the sour grapes of turkeys who went out and purchased some bland other computer.

Speaking about apostate TI freaks: Did you ever notice that many continue to lurk on our boards even though there is nothing there for them. And what do they do when they get on? They try to sow seeds of doubt, dissent, and discontent regarding the relative worth of our machine to theirs. I do declare that it is obvious to me that misery does require company! It is also obvious to me that they are trying to convince themselves that they have made a good purchase. Another reason that they still insist on coming around is the fact that they are not finding the personalized support that members of our group have been giving each other. If they were finding such support, why would they even bother to come around any more? It's like a man trying to get

a date with his ex-wife after the divorce. Some people just don't know how to let go when they have already let a good thing slip through their fingers. I therefore have a message to "Mr. IBM." Look, Honey, I think that you should take the "I" out of your handle and then you will see just what *this* all American girl thinks of you!

I was very pleased with the choice of "Butch" Goldstein for our new president. Because he is a family man, he keeps our board clean so that it is appropriate for all people of all ages. He is also very involved with and committed to the group. He is hardworking and friendly. He has always been around when there was work to be done. He has never been a shirker. I really feel that it will be good to have a president that comes to the meetings enough times so that you can remember his name and not have to refer to him as, "What's-His-Name" or "What's-His-Face." I must admit that the main reason that I am glad that he is the president is the fact that he's so cute, *cute, CUTE!*

There is one important subject that your favorite girl would like to discuss: It is the subject of *FAIR-WARE!* Firstly, fair-ware is not the same as free-ware. Free-ware, as the name implies, is free for the asking. It is a free-bee. I must say that some programmers, like cutey-pie John Behnke, have been very generous in the past with their free-ware. How many of you out there in TI land have ever bothered to sit down and write him a note of thanks for his efforts? How many have bothered to put up a complimentary note on one of the boards for his past efforts. All that I see are criticisms. This tender young thing wants to publicly express her gratitude to John Behnke for all of the free-ware that he has put up in the past and for his ongoing efforts to re-write the board. And if he should ever stop up and see me some time, I have something else that I want to give him in private, and I don't mean my thanks!

Fair-ware is not the same as free-ware. As the name implies, the author of fair-ware programs expects a *fair* renumeration for his efforts. When a user receives a fair-ware program, he/she is honor bound to either send the author the money that he is charging for the program or erase the disk. It is very generous of the writers to allow potential buyers to try before they buy. Unfortunately, some people are confusing generosity with welfare. Yes, we have some users who are looking for something for nothing. This working girl knows that that just can't be. I strictly adhere to the principle of: "Nothing for *Nothing!*" That is the American way. And if I give you a present today, tomorrow there will be a price to pay!

Now, let's get down to some not so nice facts: We are presently using a machine that our detractors are calling a dodo instead of a phoenix. We are blessed to have the support of the third party manufactures that we presently enjoy. How long do you feel that a programmer can *afford* to write programs that only two people pay for? I have seen some really fantastic programs (*Fast Term, Mass-Trans, etc.*) that the programmers are only asking $15.00 or $20.00 for. Do you think that you can buy a really decent terminal emulator program for the IBM, Apple, or Commie-door for that kind of money. Don't make me laugh! Once you get one of those machines, that's just the beginning. You still need the software and them big manufacturers will make you pay through the nose! By frustrating the attempts of writers of programs of TI software, we are defecating in our own beds and that makes about as

much sense as a three legged cat, without a tail trying to dig sh#$ *(ed note: expletive deleted)* on a frozen pond. In other words, it makes *no sense*. Give the writers your praise and compliments but keep the checks coming in. As we say where I come from, "Money talks, *bull s#t walks'(ed note: expletive deleted)*

Here I have a message to the programming freaks of the TI world: I have seen some really brilliant minds who are committed to working on the TI computer. That cute little elf Nicky Iacovelli has done a lot of work on the board. Cutey pie Johnny Behnke is the most resourceful programmer in XBasic that I have ever seen. Not only did you do a terrific job of rewritting the Board, but you've created some of the best crashes in modern history. Todd Kaplan (You have a cute little bod) is as close to being brilliant that a person can be. You guys really turn me on' In the spirit of the season, Fellas, I want to share with you some advice: Computers aren't *everything*. A girl like me can give you something that would make computers take a secondary place within your lives. As this is the season for giving, I would like to give a very nice present to each of you sexy guys. Meet me in the back of the Fireside Lounge at the end of the next meeting and I will give each of you a key to my apartments and there I have something very special to give you. One warning though: If you lose my door-key, you'll get no NEW KEY!

Time to go. Fellas' See ya'll at the meeting in January'
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REMarks: Carole Goldstein

This month there has been a very important contribution to the newsletter which I hope will make it even better than it is now. And this contribution should make my job a little easier by making it a little easier for *YOU* to contribute. John Behnke, in his newest version of the User's Group BBS' has added the "S" command. This will allow anyone with a modem to *SUBMIT* to the newsletter. Please use this function. It will enable you to write an article at your convenience and get it to me, also at your convenience. It has already made two articles in this newsletter available for your reading pleasure.

Also new this month is Jack Topham's collumn with news from other user's groups. We have always exchanged newsletters with every other group that would exchange with us. Often articles of interest and even reprinted articles from our own pages would appear in these publications. Until now, we have had noone to report to our users on what is going on elsewhere. Now we do.

One of our regular columnists got a little carried away this month. As editor, I took the liberty of deleting some harsh language from Texincia's column. Texincia, you're great when your angry but remember, you are a lady!

Another one of our regular columnists was ill this month just before the newsletter deadline. Dave Wakeley's column will resume next month.

In closing, I'd like to wish everyone the happiest holiday season. Hope you and your computer got everything you wanted.